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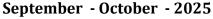
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## **Web Based Library Services**

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#### Abstract:

Web Based Library Services, Digital Library Services, Internet Library Services and Electronic Library Services are the similar terms. Simply These services are provided through Internet. Due to new technology the Traditional Library methods of offerings has been greatly changed. They offers new web based library services like 'Web Catalogues, Web search engines, Web forms. It saves the time of users and they can access the services as per convenience. Today's Digital Era, the users needed quick response from the information and knowledge centers with any barriers so it has a challenge to keep vast information and filter the information to cope up with the users satisfaction is the main challenge for libraries and librarians. Due to smart phones, Tablets and Social media awareness our customers/ Users are smart to handle the constraints of information access but still the libraries role are important as such every one knows the various roads to go to their destination but librarians point out the 'Sahi Direction/Sahi Path to go to reach their destination'.

My paper focus on to the needs of Library web based services as well as the advantages and disadvantages of Web based services.

### Keywords: Web, Technology, Digital, Internet Based services, Library services.

Web Based Library Services, Digital Library Services, Internet Library Services and Electronic Library Services are the similar terms. Due to web remote library collection access is improved and possible. There are 4 generations of information retrieval tools from traditional online services to till.

- The 1<sup>st</sup> generation of Information Retrieval was designed for use with bibliographical databases. It provides easy browsing capabilities.
- 2. 2<sup>nd</sup> generation tools attempt to collect and index resources, automatic collection and indexing reduce human effort. The benefit of this generation is the Ability to search through

- information from massive amounts and locate the desired information.
- 3. 3<sup>rd</sup> generation focused on World Wide Web Meta Search Engines such as Harvester and Meta Crawler.
- 4. 4<sup>th</sup> generation involves new ideas such as search agent technology. Web based search engines are works as a means of finding pages, different search engines, directory, meta search engines, gateways, subject gateways, subject portals, electronic journals and online databases are used in different ways from simple keyword searching up to peer reviewed web sites.

#### What Is Web Based Library Service?

According to White (2001)" It is an information access service in which users ask questions via electronic means. Eg. Email or Web forms. A digital Library Service manages and develops electronic services, library websites and library staff.1.

## Need And Purpose Of Web Based Library Services:

Web resources are directly accessed through the Internet. Users can access these from anywhere and 24\*7. There are no other restrictions or any boundaries or walls. These services are ensured the exact need of users and exact proper match. (Sahi Information to Sahi User)

Services are quiet useful to save the readers time. To make aware and information literate to the users about information sources and available services. These services provides user assistance about their queries.

These services are must be-

- 1. Flexible
- 2. Handle user interfaces
- 3. Interactive
- 4. Participating and
- 5. Satisfactory to experienced users.

# **Key Web Based Services: Web OPAC:**

Through this users are searching and finding the Books, Journals and other materials. Web Based Online Public Access Catalogue. It's an gateway of library services. Web OPAC is online catalogue of library resources. It's allows user to access the library catalogue from re- mote on the web. It established the link with resources as e-Journals, e-books. Web OPAC provides e-resources with their URL. The most important feature of the web OPAC is whatever you can browse, you can make a list and email id to

self. Major Web OPAC's are- Voyage, Geo web, ALEPH, Web cat, INNOPAC.

#### **Subject Gateways:**

Subject Gateways are search engines of particular subject. It's website to compile information on various resources. They provide user interface to access databases and indexes the aim of subject gateways are to list and review the most important sites on web relevant to that subject. These sites are peer reviewed to ensure that the gateway is relevant and up to date. These sites are called 'Portals'. Web search engines were developed by computer scientists.

Some Subject Gateways are-

• Intute- <a href="http://www.intute.ac.uk/">http://www.intute.ac.uk/</a>

A multi subject gateway, is a free online service provides access to web resources. It helps to search different subjects web resources. 1.Arts & Humanities 2.Health &Sciences 3.Science Engineering & Technology 4.Social Sciences

• BULB- Bulleting Board for Librarieshttp://www.bulb.ac.uk/

It's an gateway of all major academic subject resources in UK higher education. It was DDC system. For highlighting web based services libraries are used bulletin boards. It provide interactive interface to invite suggestions on activities and services, similarly it provides the forum to post message and articles. It also allows users to post or retrieve messages.

• ALEX- <a href="http://www.informations.com/">http://www.informations.com/</a> alex//

This gateway contains information about full text digital documents on American Literature available on public domain. Social Science Cyber Library

• Electronic Journals-

The e- journals are available with abstract or full text. They are constantly

updated, easy to access but also there is risk to infringe the copyright law mostly.

E-Journal is available in PDF format as well as bitmaps, ASCII (American Standard Code for Information Interchange ), SGML ( Standard Generalized Mark up Language ), HTML (Hyper text Mark up Language )

Major e-Journal Portal- J STOR, many journals are in printed versions and also some journals are available in electronic forms, some journals are free to download.

#### Online Bibliographic / Indexing Databases:

These Databases provides bibliographic citations location for newspapers, articles and for journals. Many libraries subscribe the databases. These are-Sci Finder Scholar, Web of Science, LISA. Many libraries subscribe to them for easy access and use of current information.

#### **Current Awareness Service:**

Publishers send updates of journals content to libraries as well as updates on website. They also details of new articles in publications. These help through publishers and booksellers to the libraries are useful to select better titles. Online book stores like Amazon.com include best reviews and group books by subjects and topics.

#### **Institutional Repositories:**

I.R is quiet useful to archive a copy of institutional author or work of local body on website. They preserve their research papers and any other work, which are published and easily access it. It needs proper and affordable digital library software and computer system.

# Directory of Open Access Repositories (DOAR)—http://www.opendoar.org/

As of 10<sup>th</sup> Dec. 2010. Already listed 39 entries of India. IGNOU digitally hosts all course material, e-Gyankosh, Institutional repository of IGNOU.2.

Few Examples-

- 1. ISI Library, Bangalore- Indian Statistical Institutehtto://library.isibang.ac.in:8080/dspac e
- DSpace of INFLIBNet http://dspace.inflibnet.ac.in 3.

#### **Library Websites:**

Library works as an information gateway, to provide institutional information research publications, developments of in house research & other activities. The print format of information, annual reports of institutions are made available & these all are accessible by OPAC of the library. Users also can access particular databases & subscribed journals from library website.

#### **Virtual Library Tours:**

V.L tour is a web page on library website. It's an virtual guide to the physical facilities of libray.it comprises library maps, layouts & floor plans, library departments & photographic view of the collections, services, infrastructure. In today's techno era it is essential to marketing the library information products & services, so, it is a wonderful tool to catch & attract the users interest & raise our consumers.

#### Ask A Librarian:

It is an internet based question answer service, connect users with librarian. May it can be access 24\*7, so,the users can ask any service related doubts & about research based doubts to the experts.

#### Frequently Asked Questions (FAQ's):

Libraries have scope to archive question and answers which are asked commonly under this section so, it helps a lot to users to clarify common doubt and in a simple manner.

#### **Real Time Services:**

It is a very new method and service to connect users live. The users can talk directly, live reference librarian at anytime from anywhere. They interact using chat technologies and provide users various websites as per their needs.

#### **User Education:**

Libraries educate the users though effective library websites, they keep the videos of library tours and informative small reels about services and facilities, giving instructions about library OPAC, library materials, magazines & orient how to handle the library properly.

#### Web Forms:

Library websites provide these type of web forms such as Indent forms (acquiring new publications), Inter Library Loan Requests Form ( for document delivery ) Ask a librarian form, Feedback forms invite suggestions & comments from students about seeking particular information, online reservation form, user survey form.

#### Web 2.0 Services:

Web 2.0 is a user's interactive platform, it provides collaborative communicative and interactive infrastructures and services. It organizes available information classify it and retrieve.

#### **Blog Based:**

Libraries share a lot of information through its blog encouraging users to give feedback, provide alerts regarding new arrivals in the library, other facilities. Blog is one of the good marketing tools of library products and services.

#### **RSS BASED: Really Simple Syndication:**

RSS feed is a web feed technology. It allows users to regular update contents from websites like news headlines, blogs, and podcasts. Libraries are using RSS feeds to keep update through blogs, local and global news, photos weather forecasts, price changes of products and sales. New publications from favorite authors, publishers list, social book marks, professional association news, RSS

updates news about world of writing for particular author publication.

#### Wiki Based:

It is a tool of collaboration, a discussion medium, a repository and a mail system. Educational institutions are hosting Wiki's for learning contents, resources and libraries are linked these with available material through internet. 4.

#### Library 2.0:

Due to funding limits and customer demands libraries are transforming and it transforms its services, staffing levels, resource access. Technology can help libraries create a customer driven, 2.0 environment, web2.0 plays a vital role to keep the library as per user's requirement and satisfaction.

#### 'Long Tail' Concept:

Tim O'Reilly in his essay 'What is 2.0'? Discusses the concept harnessing the collective intelligence of every one who uses a product, blogs and wiki's engage the customer's to give fresh contents.

In this concept, it consider we are only reaching to our existing customers with our services but for non-library and shy users, we can provide ILL scheme, purchase on demand from online used book retailers, home delivery of books who are never visit libraries are also provide offering electronic text as well.

#### Some examples-

- 1. Temple University Library, Philadelphia, uses it's blog to provide a place for news, events & discussion.
- Ann Arbor District Library (AADL)
   MI turned homepage into a blog, making build a community and quick response in the feedback form.
- 3. Saint Joseph Public Library in South Bend, IN used open source wiki software create a subject guide that facilitates customer feedback.

4. Hennepin county library making fruitful services. User comments, Tags, ratings feed user created content are kept on web sites & allowing users to comment in the catalog.

Customer privacy is also important. Libraries should protect customer privacy with technology based services. They preserve policy by allowing anonymous contents & tagging within the catalog. The users should not be required to identify themselves publicly. Many libraries offered top quality databases access, downloadable audio books & music, instant messaging service.5.

Due to new technology, the traditional library methods of offerings has been greatly changed. They offers new web based library services like 'Web catalogues', Web search engines, Web forms. It saves the time of users and they can access the services as per their convenience.

#### **Web Based Library Services:**

These type of services provided through internet as medium. According to White (2001)defined these services as an information access service in which users ask question via electronic means e.g. Mail or Web forms. These provides unique service of linking to full text articles, integrating library housekeeping operations, library policies staff listings for timely help.6.

#### **Review of Related Studies:**

Web based library services are modified versions of existing services and technology driven library services. (Arora,2001) Because of its graphical and navigational interfaces library OPAC has a greater acceptance. Today's techno savvy are very well know about social networking tools, also the libraries and librarians design and implement world class web based library

services to strengthen and improve existing services.

#### **Few Research Studies:**

- Schubert & Ec Peng study about Integrated web based Inter Library Loan (ILL) system to replace and enhance the existing manual based ILL system and trend towards electronic delivery of articles in ILL.
- 2. Walten,2005 Web based document delivery service is a value added service available to the users.
- 3. Chandra,2002 Innovative reference services and other cutting edge digital products such as podcasting and wiki's
- 4. Lukasiewics,2007 Chat reference is a synchronous way of communication.
- 5. Nielsen & Hummelshoj,2008 Introduction of an instant messaging (IM) reference service.
- 6. Hvass & Myer,2008 Web forms facility is very interactive.
- 7. Feldman & Stroble,2002 recommends web based services are essential for self-service circulation or librarian mediated online references. These all are possible cause of Web.

It is the need of libraries to exercise awareness, necessary orientation & training to newly introduced services.7.

# Problems in Accessing Web based library services:

Web based library services has some problems include- Lack of skilled person, Inadequate computer access, Insufficient time, Lack of library orientation, Lack of systems, Connectivity and slow access of Internet affect users access.

# Suggestions to Strengthen Web Based Library Services:

There are some suggestions from university librarian for improving web based library services-

- 1. Frequently updation of web pages
- 2. Content based book services
- 3. More and more hyperlinks to web based library services
- 4. Facility to upload content by users.
- 5. Higher bandwidth & wireless connectivity
- Institutional archives of faculty publications.
- 7. Simplification of administrative procedures to make better use of web based library services.
- 8. All back volumes of journals should be available online.
- 9. Digital literacy programs & more web based tutorials for users.

Below mentioned practical suggestions are expected from the study university libraries as follows-

- Need to develop dynamic library websites compatible with web 2.0 technology including a web forms and frequently upgradation of website.
- 2. Web 2.0 facilitates communication, conversation, information sharing & collaboration with online community.
- Facilitate RSS feeds, Lib.wikis, Instant messaging service, Weblogs, Virtual Library tours, Web based tutorials, Floor maps, Discussion forums & Listserv are the new highlight of web based services.
- 4. Provide Semantic technologies and Ontologies are key aspects in generation of web users. Advanced Semantic Technologies enable computers to understanding of meaning of information being processed. Ontologies try to resolve the problem of ambiguity in natural language, their transmission meanings, analogy comparison or metaphor. 8.

#### **Advantages of Electronic Form:**

- 1. Format is in early stages of development.
- 2. Requires some training to the handling staff.
- 3. Special equipment required hardware, software, printers.
- 4. Access is unreliable (URL, Internet connection problem)
- 5. Use is limited by copyright laws & licensing agreements.
- 6. Fast publication
- 7. Allows multiple users with simultaneous access.
- 8. No more missing issues.
- 9. Saving storage space.
- 10. No Shelving required.

# Different Resources for Web Based Library Services?

- OPAC- Online Public Access Catalogue allows users to search for the bibliographic records of library collections.
- Gateways- Gateways provide simple search facility. It covers wide range of subjects.

Eg.-NISS-National Services and Systems. **IPL**- Internet Public Library

- Portals- Portals are either commercial or free. Integration of existing services by using binding agents such as customization & authentication services.
- Search Protocols- Z39.50, loan protocols such as ISO 10161, E-Commerce.

There are 3 kinds or Portals.

#### **Consumer, Vertical and Enterprise:**

Consumer (Horizontal) Portals are aimed at consumer audiences & offer free email, games, chat. Eg. Yahoo, MSN & AOL Vertical Portals are targets a specified audience as a particular industry. Eg.- Vertical Net

Enterprise Portals are offered only to corporations & similar organizations. Eg.-Epicentric & Corporate Yahoo!

Subject Portals- web search engines had been developed by computer scientists.

The primary aim of subject portal is to list and review the most important sites or web

relevant to subject. Sites are appearing all the time. Relying on a subject portal is a one stop shop for information on a topic.

#### **Subject Directories:**

Subject directories are index home pages of sites. The directories are general, academic and commercial or portal

| Subject Portals                            | Web address                           |
|--|---------------------------------------|
| ADAM –Arts,Design,Architect & Media        | https://www.adam.ac.uk                |
| EEVL- Engineering Information              | https://www.eevl.ac.uk                |
| ELDIS- Electronic Development &Environment | https://nt1.ids.ac.uk/eldis           |
| Information System                         |                                       |
| History                                    | https://lhr.sas.ac.uk                 |
| OMNI- Organizing Medical Networked Infn.   | https://www.omni.ac.uk                |
| Scicentral- Science Resources              | https://www.scicentral.com/index.html |
| SOSIG- Social Science Infn. gateway        | https://www.sosig.ac.uk               |
|  |                                       |

#### **Electronic Journals:**

| Electronic Journals       | Web address                       |
|---------------------------|-----------------------------------|
| ACM Digital Library       | https://portal.acm.org/portal.cfm |
| EBSCO databases           | https://search.epnet.com/         |
| Elsevier's Science Direct | https://sciencedirect.com/        |
| Emerald full text         | https://iris.emeraldinsight.com   |
| IEL online                | https://www.ieee.org/             |
| OCLC                      | https://www.oclc.org/             |
| Springer Vertage Link     | https://springer.com/             |

#### **Search Engines:**

Search engines are huge databases of web page files that have been assembled automatically by machines. It indexes every page of a website & subject directories are human compiled & maintained.9.

## Web Based Services in University Libraries- A Pakistani Perspective:

Libraries are used their websites to provide services to users without their physical presence. National Digital Library Program, Pakistan Education & Research Network ( PERN)& Research Repository by Pakistan are significant initiatives of Higher Education Commission of Pakistan (HEC), which promote Technology & Research in the country. There were many studies available on the design of library websites, role of library websites, web based library services & case studies of individual library websites in the international library literature. Halub (1999) stated that, Librarians of Cedar's- Sinal Health system have maintain& creates web based library services, Ahmed (2002), in survey of Seven Arabian Gulf University Library most of offering web based services. Feldman & Stroble (2002) recommends advanced services. Initiate self service circulation or librarian mediated online references. Saeed (

1999) studied use of internet in 29 university libraries of Pak & found only 2 University Libraries with Web OPAC. Mirza (2007) surveyed six federally chartered general University Libraries & only four University Libraries provided reference service. Other three provides document delivery service. 10.

## Web Based Services in University Libraries- Independent University Bangladesh:

(IUB) provides:

- 1. Digital Folk Music Archive
- 2. E- resources browsing lab
- 3. Databases- American Society of Agri & Bio engineers (ASABE), American Institute of Physics(AIP), American Society of Civil Engineer (ASCE) Journals, Business Source Premier Publications (EBSCO), Cambridge University Press General Science, Chemistry, Commerce, Science.
- Cochrane Lib- Medicine, Neurology, Metal health, Public health
- 5. Digital meeting room
- 6. OPAC Terminal
- Remote Access through Refread- all databases

Eg.-1. Bangladesh Agricultural University (BAU)- provides DSpace repository for its digital collections 2. Bangalesh university of Engineering 11.

## Web Based Services in University Libraries-Chinese University of Hong Kong Library:

- 1. Provides online exhibitions.
- 2. Chinese rare book digital collections
- 3. Western rare book collection
- 4. Digitised collections-1.3D human anatomy collection; 2.Grain of sand poems of Hong- Kong 3.Archive of

Christian study center on Chinese religion & culture 4. Audio archives-lecture on Chinese classics 5.Bei-Shan Tang collection & many more. 12.

## Web Based Services in University Libraries-Bhutan University Library:

Provides

- 1. Digital repositories
- 2. OPAC
- 3. Electronic resources
- 4. Library web sites
- 5. Online Information Services
- 6. User education & surveys

Khulna University of Engineering and Technology KUET – offers web based services through DSpace.13.

### Web Based Services in University Libraries- Sri Lanka:

Primarily offered services from University of Colombo, University of Peradeniya. Provides access to digital resources like e-journals, e- books through web sites, adopted advanced web 2.0, offers online catalogues, e- resources, support for use queries.

#### Services:

Ask a Librarian, Request forms, Inter library loan/ Document delivery service, Online instructional tutorials, Citation style guides & tools, Subject librarian, New arrivals, Plagiarism, Past question papers, E-journals, E-books, Useful databases, Reference tool list, E-thesis & dissertations, Open access resources, Institutional repository14.

Library websites have integral components of modern library operations, serving a focal point for delivering online collections & facilitating access to a wealth of resources.

#### **Challenges of Web Enabled Services:**

Though these services are many advantages although they has some challenges, they are-

- 1. Digital Divide
- 2. Technological Barriers
- 3. Security Concerns
- 4. Budgetary Constraints
- 5. Information Overload
- 6. Technical Support
- 7. Users Trainings
- 8. Resource Management
- 9. User Privacy15.

#### **Advantages of Web based Services:**

This offers various advantages across various domains, providing convenience, efficiency and accessibility.

- Accessibility- Access as per our convenience.
- Scalability- This services can easily scale to accommodate varying user loads, whether there is increase & decrease in users, the infrastructure can be adjusted accordingly.
- Collaboration & Communication- It enhances users work together on projects, share information and communicated seamlessly.
- Real time collaboration Web based collaboration tools enable real time interactions. Users can edit documents, share feedback & collaborate in real time. Fostering productivity & efficiency.
- Automatic updates- These services updated centrally without requiring user interventions. It ensures users always have access to the latest features, security patches & improvements without the hassel of manual updates. Cross Platform compatibility- it designed to compatible with various operating systems & devices ensuring a consistent users experience

across different platforms, browsers and services.

- Data Security Security & data privacy are imp. Parts, regular backups, encryption, authentification mechanisms contribute to safe guarding user data. Real time- collaborations- Web based collaboration tools enable real time interactions. Users can edit documents, share feed back & collaborate in real time, fostering productivity & efficiency.
- Cross Platform Compatibility- It designed to compatible with various operating systems & devices ensuring a consistent user experience across different platforms, browsers & devices.
- Global Reach- Users from different parts of the world can access & benefit from the same set of services, breaking down geographical barriers.
- Enhanced User Experience Continuous advancements in web technologies contribute to improved user interfaces & experiences. Intuitive design, interactive features & responsive layouts enhance overall usability of web based services.

## Disadvantages of Web Based Library Services:

Hatna (2015) discussed disadvantages which impact users & service providers.

- Reliance of Internet Connectivity-Web based services needs stable internet connections but in poor infrastructure of internet or limited connectivity have difficulty in accessing as well as reduced usability.
- Security Concerns- These services
  has security threats as data breaches,
  hacking, malware & phishing attacks.
  Vulnerabilities in web applications,
  inadequate security measures and user

negligence can compromise sensitive information, leading to privacy violations & financial losses.

- **Dependence** on Third **Parties Providers-**Many services are depended upon third party providers for infra. hosting, software development. It introduces risks related to service reliability, ownership. Vendor lock in & compliance with terms of service agreements.
- Limited Offline Access- Services requires internet connection, limiting functionality in offline environments, users may encounter difficulties accessing content, completing task, synchronize data when offline, especially in areas with intermittent connectivity or network outages.
- **Technical issues & downtime-** These services are susceptible with technical issues such as server downtime, software bugs, maintenance outages & performance degradation. Service disruption can impact user disrupt productivity, business operations & damage the reputation of service providers.
- Digital Divide Users who lack digital literacy, necessary skills resources or infrastructure to access web based services may be marginalized & excluded from online opportunities& challenges.

#### **Conclusion:**

Key factor of affecting the performance of libraries are the users, students & researchers & the quality of services delivery. Quality of library collections & services are the indicators of higher education quality evaluations. Technological evolution

has impact on the library services. Libraries are providing access to digital & electronic collections & other complimentary services. It includes Digital Reference Service, Online Document Delivery, Inter Library Loan, Online Help & information skills tutorials. Libraries success is depend on the user as a customer. SERVQUAL- Library services quality assessment tool. They are used for to measure electronic & digital library services. LIBQUAL-Library services quality measurement tool.

Many Indian Libraries are still not geared up for accessing E-Journals because of user ignorance & initial fund. NISSAT, INFLIBNET, ICAR, NIC NET, DRDO,DAE, CSIR, SIRNET,MHRD,IIM Libraries are working to improve this problem. They spend a huge amount of money for library acquisition towards e-Jr's., e-database.

Some initiative include Indian Institute of Management for accessing bibliographic databases. CSIR laboratories for Science Direct, FORSA for accessing & Astrophysics Astronomy Journals, Hyderabad Knowledge Park members of J-INFLIBNET (UGC-INFONET ) initiative for full text & databases like BIOSIS & CAS & INCEST for hosting full text sources & full bibliographic databases.

#### Webliography:

- 1. Bhatnagar Anjana, 2005, Web Based Library Services, https://ir.inflib.net.ac.in
- 2. E-Gyankosh.ac.in/butsteam/Unit 7-pdf
- Kalbande Dattatray,2018, Institutional Repositories in India: An overview, Researchgate.net/publication/322820558, Online International Interdisciplinary Research Journal,Vol. 11/4,July-Aug.2012
- 4. Bhatnagar Anjana, 2005, Web Based Library Services, <a href="https://ir.inflib.net.ac.in">https://ir.inflib.net.ac.in</a>

### **IJAAR**

- http://www.libraryjournal.com/ index.asp?layout-article print&article ID-CA 6365200,5/21/2008
- M.Madhusudhan, Dr.V.Nagabhushanam, 2012, Use of Web Based Library Services in Select University Libraries in India: A Study-International Journal of Library & Information Studies, Vol. 2/1, March 2012, ISSN: 2231-4911
- M.Madhusudhan, Dr.V.Nagabhushanam, 2012, Use of Web Based Library Services in Select University Libraries in India: A Study-International Journal of Library & Information Studies, Vol. 2/1, March 2012, ISSN: 2231-4911
- M.Madhusudhan, Dr.V.Nagabhushanam, 2012, Use of Web Based Library Services in Select University Libraries in India: A Study-International Journal of Library & Information Studies, Vol. 2/1, March 2012, ISSN: 2231-4911
- 9. Bhatnagar Anjana, 2005, Web Based Library Services, <a href="https://ir.inflib.net.ac.in">https://ir.inflib.net.ac.in</a>
- 10. Mirza,M & Dr. Mahmood,K 2009, Web Based Services in University Libraries- A

- Pakistani Perspective,
  <a href="https://digitalcommons-unl.edu/libphilprac/283">https://digitalcommons-unl.edu/libphilprac/283</a> e-Journal,283
  ISSN 1522-0222
- 11. Web Based Library Services in Bangladesh, IUB Independent University Bangladesh-https://library.iub.edu.bd
- 12. Web Based Library Services of Hong Kong Library,https:// www.libchuk.edu.hk
- 13. Web Based Library Services in Bhutan University Library, google.com/search?q
- 14. Ranaweera, Achala 2016, Web Based Library Services in Sri Lanka University Library, LI SI, DOI-10.13140, RG2.1.4225.30479
- 15. Kapoor Nimita, Dr. Tiwari Pankaja, Web Enabled Library Services in Academic Libraries,2024April,International Journal in Management& Social Science,Vol.12/4,ISSN: 2321-1784,Impact factor 8.088,J homepage: http://ijmer.net.in